## REMARKS/ARGUMENTS

Claims 1-22 were pending in this application. Within the Office Action, claims 1-13 are rejected under 35 U.S.C. § 102(e), and claims 14-22 are rejected under 35 U.S.C. § 103(a). Accordingly, claims 1-12 are pending.

The present invention

The present invention is directed to a back-channel communication system for coordinating routing decisions. A system in accordance with the present invention comprises a plurality of routing intelligent units that each controls a subset of networking devices, such as routers. The routing intelligent units assert routes to the routers under their control, such as by using the Border Gateway Protocol (BGP). Routing information is exchanged among the routing intelligent units so that more paths can be analyzed for transmitting data through the system. This allows the system to recognize even more efficient paths for routing data.

Rejection under 35 U.S.C. § 102(e)

Within the Office Action, claims 1-13 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,658,000 to Raciborski et al. The Applicants respectfully traverse this rejection.

Raciborski is directed to a system for and method of distributing content objects over the Internet to client computers. Content objects can be data files, video images, streaming videos, and the like. To distribute content objects to client hosts with a sufficient quality of service (QoS), content objects are distributed at various locations across the Internet. When a user on a client host requests a copy of a content object, the system determines the location of a server (called a content exchange) that contains a copy and is able to transmit the copy to the client host with an acceptable QoS. QoS is based on any number of criteria such as a distance from the server to the client host, a bandwidth between the server and the client host, and a response time at a port on the server, to name a few.

As shown in its Figure 1, Raciborski discloses serval components coupled over the Internet: one or more client computers 112; content exchanges 116 that serve as caches for content objects; an active directory 104 that contains a list of content objects; and one or more origin servers 108 that receive download requests and determine where a content object should be downloaded from, such as from a specific content exchange or from other locations on the

Internet.

At paragraph 3 of the Office Action, all of Figure 1 of Raciborski is referred to as disclosing the plurality of networking devices. Later, it is suggested that the content exchange corresponds to the routing intelligence units. For example, it is stated that the content manager and the content controller, which together form a content exchange, correspond to the one or more processes for controlling the distinct set of networking devices. And again, it is stated that the content exchange corresponds to the one or more coordination processes for exchanging routing parameters with the plurality of routing intelligence units.

The Applicants respectfully disagree with this characterization of Raciborski. First, when this application was filed, those skilled in the art would recognize that "networking device" has well-defined meaning: a device that mediates data along a path, and includes routers, gateways, bridges, switches, hubs, and the like. This definition is supported throughout the application, such as at page 4, lines 6-8, where it is explained that in accordance with one embodiment, Routing Intelligence Units may assert routes to the routers under their control. In Raciborski, the content exchange does not control any networking devices. At most, the content exchange merely caches content objects and, in response to user requests, downloads the content objects to a client host. Information from it may be used by a client host to retrieve content objects, but it does not control a networking device. Furthermore, the content exchange does not exchange routing parameters, as does the routing intelligence unit of the present invention.

The Office Action cites column 19, line 55, to column 20, line 46, of Raciborski as disclosing that the content exchanger controls a distinct subset of the plurality of networking devices. Here, Raciborski merely explains various ways to increase efficiency by reducing the number of content exchangers that must be analyzed to determine their QoS. Raciborski then states how the subset of content exchanges and how the QoS can both be determined. (Col. 20, lines 30- 55). This portion of Raciborski describes how a subset of content exchangers can be selected for testing. It does not describe how a distinct subset of networking devices can be controlled.

In contrast, the routing intelligent units in accordance with the present invention control distinct subsets of networking devices. For example, as shown in Figure 5B of this application, the decision maker 512 controls the distinct subset of routers 520 and 522.

The Office Action cites column 11, lines 14-24, of Raciborski as disclosing a process for controlling the distinct subset of networking devices. This section of Raciborski explains that a content exchange is used to cache content objects, and goes on to describe the components of a

content exchange. It does not disclose a process for controlling a distinct subset of networking devices.

The Office Action cites column 12, lines 26-29, of Raciborski as disclosing a coordination process for exchanging routing parameters. There, Raciborski merely explains that a content exchange comprises a content tracker 404 that can be used to provide status information to content managers 312. The status information either is sent to other content managers or is posted to a central location.

Claim 1 of the present invention recites a communications back-channel, for coordinating routing decisions. The communications back channel comprises a plurality of networking devices and a plurality of routing intelligence units. Each of the plurality of routing intelligence units includes software for controlling a distinct subset of the plurality of networking devices. Each of the plurality of routing intelligence units also includes one or more processes for controlling the distinct subset of networking devices and one or more coordinating processes for exchanging routing parameters with the plurality of routing intelligence units.

As explained above, Raciborski does not disclose a plurality of routing intelligence units that each includes software for controlling a distinct subset of networking devices. Nor does Raciborski disclose routing intelligence units that include coordination processes for exchanging routing parameters among themselves. For at least these reasons, claim 1 is allowable over Raciborski.

Claims 2-13 all depend on claim 1. As explained above, claim 1 is allowable. Accordingly, claims 2-13 are all also allowable as depending on an allowable base claim.

Rejection under 35 U.S.C. § 103(a)

Within the Office Action, claims 14-22 are rejected under 35 U.S.C. § 103(a) as obvious over Raciborski in view of U.S. Patent No. 6,185,598 to Farber et al. The Applicants respectfully traverse this rejection.

Within the Office Action, column 5, lines 4-12, of Raciborski is cited as disclosing a method of exchanging routing parameters among a plurality of decision makers, where each decision maker controls a distinct subset of a plurality of routers. This is a mischaracterization of Raciborski. At column 5, lines 4-12, Raciborski discusses bandwidth and how to locate content objects to increase QoS. Nowhere at column 5, lines 4-12, is the exchange of routing parameters among decision makers that control a distinct subset of a plurality of routers even discussed.

Next, Figure 1, col. 9, lines 33-49, col. 10, lines 21-34, col. 11, lines 25-37, and col. 12, lines 27-39, of Raciborski are all cited as disclosing "concurrent with asserting a first plurality of preferred routes, sending a plurality of performance scores for the first plurality of routes to the plurality of decision makers via the dedicated mesh." Again, this analysis mischaracterizes Raciborski. First, column 9, lines 33-49, merely describes status information for an origin server, information such as the number of concurrent links used, the number of concurrent links allowed, bandwidth utilization, and cache chum rate. This information has to do with the load on an origin server. It has nothing to do with a performance score for a route. Column 10, lines 21-34, discusses a health check of an origin server. Column 11, lines 25-37, describes the components of a content exchange, and column 12, lines 27-39, again describes status information. Again, none of this has anything to do with performance scores for routes.

Nor does Raciborski disclose using a dedicated mesh. Raciborski discloses transmitting data over the Internet, an all-purpose structure that does not qualify as a dedicated mesh.

Claim 14 is directed to a method of exchanging routing parameters among a plurality of decision makers. Each decision maker controls a distinct subset of a plurality of routers. The plurality of decision makers are in communication via a dedicated mesh. The method comprises asserting a first plurality of preferred routes for a first plurality of prefixes to the subset of routers and, concurrent with asserting the first plurality of preferred routes, sending a plurality of local performance scores for the first plurality of routes to the plurality of decision makers via the dedicated mesh.

As explained above, Raciborski does not disclose a method of exchanging routing parameters among a plurality of decision makers, where each decision maker controls a distinct subset of a plurality of routers, and further where the plurality of decision makers are in communication via a dedicated mesh, as recited in the preamble of claim 14. Nor does Raciborski disclose sending performance scores to a decision maker using a dedicated mesh, as recited in the body of claim 14. For at least these reasons, claim 14 is allowable over Raciborski and Faber.

Claims 15-22 all depend on claim 14. As explained above, claim 14 is allowable. Accordingly, claims 15-22 are all also allowable as depending on an allowable base claim.

## CONCLUSION

For the reasons given above, the Applicants respectfully submit that claims 1-22 are in condition for allowance, and allowance at an early date would be appreciated. If the Examiner has any questions or comments, the Examiner is encouraged to call the undersigned at (408) 530-9700 so that any outstanding issues can be quickly and efficiently resolved.

Respectfully submitted,
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CERTIFICATE OF MAILING (37 CFR§ 1.8(a))

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